AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A support for a lithographic printing plate obtained by performing graining treatment including electrochemical graining treatment on an aluminum plate,

wherein said aluminum plate is an aluminum plate which is manufactured by a method including molten metal treatment, and contains Fe of 0.20 to 0.29 wt%, Si of 0.03 to 0.15 wt%, Cu of 0.032 to 0.040 wt% and Ti of 0.050 wt% or less and whose remaining portion is composed of Al and unavoidable impurities,

and wherein surface area ratio and steepness obtained from three-dimensional data by measuring 512 × 512 points in 5 μm × 5 μm on the surface with an atomic force microscope each satisfies the following conditions (i) to (vi):

(i) surface area ratio ΔS^5 is 30 to 70%;

(ii) surface area ratio $\Delta S^{5(0.2-5)}$ is 10 to 30%;

(iii) surface area ratio $\Delta S^{5(0.02-0.2)}$ is 30 to 70%;

(iv) steepness $a45^5$ is 20 to 50%;

(v) steepness $a45^{5(0.2-5)}$ is 5 to 20%; and

(vi) steepness $a45^{5(0.02-0.2)}$ is 20 to 60%,

wherein ΔS^5 which is found by the following equation from actual area S_x^5 found by an approximation three-point method from said three-dimensional data and geometrically measured area S_0^5 is surface area ratio expressed by $\Delta S^5 = [(S_x^5 - S_0^5) / S_0^5] \times 100$ (%);

$\Delta S^{5(0.2-5)}$ which is found by the following equation from actual area $S_x^{5(0.2-5)}$ obtained by extracting a component with wavelength of 0.2 μm or longer and 5 μm or shorter from said three-dimensional data and geometrically measured area S_0^5 is surface area ratio expressed by $\Delta S^{5(0.2-5)} = [(S_x^{5(0.2-5)} - S_0^5) / S_0^5] \times 100$ (%);

$\Delta S^{5(0.02-0.2)}$ which is found by the following equation from actual area $S_x^{5(0.02-0.2)}$ obtained by extracting a component with wavelength of 0.02 μm or longer and 0.2 μm or shorter from said three-dimensional data and geometrically measured area S_0^5 is surface area ratio expressed by $\Delta S^{5(0.02-0.2)} = [(S_x^{5(0.02-0.2)} - S_0^5) / S_0^5] \times 100$ (%);

steepness $a45^5$ is an area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area S_x^5 found by an approximation three-point method from said three-dimensional data;

steepness $a45^{5(0.2-5)}$ is an area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area $S_x^{5(0.2-5)}$ found by extracting a component with wavelength of 0.2 μm or longer and 5 μm or shorter from said three-dimensional data; and

steepness $a45^{5(0.02-0.2)}$ is an area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area $S_x^{5(0.02-0.2)}$ found by extracting a component with wavelength of 0.02 μm or longer and 0.2 μm or shorter from said three-dimensional data.

2. (previously presented): A support for a lithographic printing plate obtained by performing graining treatment including electrochemical graining treatment on an aluminum plate,

wherein said aluminum plate is an aluminum plate which is manufactured by a method including molten metal treatment, and contains Fe of 0.20 to 0.29 wt%, Si of 0.03 to 0.15 wt%, Cu of 0.032 to 0.040 wt% and Ti of 0.050 wt% or less and whose remaining portion is composed of Al and unavoidable impurities,

and wherein surface area ratio and steepness obtained from three-dimensional data by measuring 512 × 512 points in 50 μm × 50 μm on the surface with an atomic force microscope each satisfies the following conditions (xi) to (xvi):

(xi) surface area ratio ΔS^{50} is 30 to 70%;

(xii) surface area ratio $\Delta S^{50(2-50)}$ is 5 to 10%;

(xiii) surface area ratio $\Delta S^{50(0.2-2)}$ is 15 to 40%;

(iv) steepness $a45^{50}$ is 25 to 60%;

(xv) steepness $a45^{50(2-50)}$ is 0 to 3.0%; and

(xvi) steepness $a45^{50(0.2-2)}$ is 10 to 40%,

wherein ΔS^{50} which is found by the following equation from actual area S_x^{50} found by an approximation three-point method from said three-dimensional data and geometrically measured area S_0^{50} is surface area ratio expressed by $\Delta S^{50} = [(S_x^{50} - S_0^{50}) / S_0^{50}] \times 100$ (%);

$\Delta S^{50(2-50)}$ which is found by the following equation from actual area $S_x^{50(2-50)}$ obtained by extracting a component with wavelength of 2 μm or longer and 50 μm or shorter from said three-dimensional data and geometrically measured area S_0^{50} is surface area ratio expressed by $\Delta S^{50(2-50)} = [(S_x^{50(2-50)} - S_0^{50}) / S_0^{50}] \times 100$ (%);

$\Delta S^{50(0.2-2)}$ which is found by the following equation from actual area $S_x^{50(0.2-2)}$ obtained by extracting a component with wavelength of 0.2 μm or longer and 2 μm or shorter from said three-dimensional data and geometrically measured area S_0^{50} is surface area ratio expressed by $\Delta S^{50(0.2-2)} = [(S_x^{50(0.2-2)} - S_0^{50}) / S_0^{50}] \times 100$ (%);

steepness $a45^{50}$ is an area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area S_x^{50} found by an approximation three-point method from said three-dimensional data;

steepness $a45^{50(2-50)}$ is an area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area $S_x^{50(2-50)}$ found by extracting a component with wavelength of 2 μm or longer and 50 μm or shorter from said three-dimensional data; and

steepness $a45^{50(0.2-2)}$ is the area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area $S_x^{50(0.2-2)}$ found by extracting a component with wavelength of 0.2 μm or longer and 2 μm or shorter from said three-dimensional data.

3. (original): The support for a lithographic printing plate according to claim 1, wherein the number of local deep areas with a depth of 5 μm or more existent on the surface is 1.0 or less per 400 μm × 400 μm.

4. (original): The support for a lithographic printing plate according to claim 2, wherein the number of local deep areas with a depth of 5 μm or more existent on the surface is 1.0 or less per 400 μm × 400 μm.

5. (original): The support for a lithographic printing plate according to claim 1, wherein Si atom attached quantity on the surface is 0.1 to 30 mg/m^2.

6. (original): The support for a lithographic printing plate according to claim 2, wherein Si atom attached quantity on the surface is 0.1 to 30 mg/m^2.

7. (original): The support for a lithographic printing plate according to claim 3, wherein Si atom attached quantity on the surface is 0.1 to 30 mg/m^2.

8. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 1.

9. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 2.

10. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 3.

11. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 4.

12. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 5.

13. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 6.

14. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 7.

15. (previously presented): The presensitized plate according to claim 8, wherein the presensitized plate is a presensitized plate for a laser printing plate.

16. (previously presented): The presensitized plate according to claim 9, wherein the presensitized plate is a presensitized plate for a laser printing plate.

17. (previously presented): The presensitized plate according to claim 10, wherein the presensitized plate is a presensitized plate for a laser printing plate.

18. (previously presented): The presensitized plate according to claim 11, wherein the presensitized plate is a presensitized plate for a laser printing plate.

19. (previously presented): The presensitized plate according to claim 12, wherein the presensitized plate is a presensitized plate for a laser printing plate.

20. (previously presented): The presensitized plate according to claim 13, wherein the presensitized plate is a presensitized plate for a laser printing plate.

21. (previously presented): The presensitized plate according to claim 14, wherein the presensitized plate is a presensitized plate for a laser printing plate.

22. (new): A support for a lithographic printing plate obtained by performing graining treatment including electrochemical graining treatment on an aluminum plate,

wherein said aluminum plate is an aluminum plate which is manufactured by a method including molten metal treatment, and contains Fe of 0.20 to 0 29 wt%, Si of 0.03 to 0.15 wt%,

Cu of 0.032 to 0.040 wt% and Ti of 0.050 wt% or less and whose remaining portion is composed of Al and unavoidable impurities,

wherein said electrochemical graining treatment is performed in order of nitric acid electrolytic graining and hydrochloric acid graining,

and wherein surface area ratio and steepness obtained from three-dimensional data by measuring 512 × 512 points in 5 μm × 5 μm on the surface with an atomic force microscope each satisfies the following conditions (i) to (vi):

(i) surface are ratio ΔS^5 is 30 to 70%;

(ii) surface area ratio $\Delta S^{5(0.2\text{-}5)}$ is 10 to 30 %;

(iii) surface area ration $\Delta S^{5(0.02\text{-}0.2)}$ is 30 to 70%;

(iv) steepness $a45^5$ is 20 to 50%;

(v) steepness $a45^{5(0.2\text{-}5)}$ is 5 to 20%; and

(vi) steepness $a45^{5(0.02\text{-}0.2)}$ is 20 to 60%,

wherein ΔS^5 which is found by the following equation from actual area S_x^5 found by approximation three-point method from said three-dimensional data and geometrically measured area S_0^5 is surface area ratio expressed by $\Delta S^5 = [(S_x^5 - S_0^5) / S_0^5] \times 100$ (%);

$\Delta S^{5(0.2\text{-}5)}$ which is found by the following equation from actual area $S_x^{5(0.2\text{-}5)}$ obtained by extracting a component with wavelength of 0.2 μm or longer and 5μm or shorter from said three-dimensional data and geometrically measured areas S_0^5 is surface area ratio expressed by $\Delta S^{5(0.2\text{-}5)} = [(S_x^{5(0.2\text{-}5)} - S_0^5) / S_0^5] \times 100$ (%);

$\Delta S^{5(0.02\text{-}0.2)}$ which is found by the following equation from actual area $S_x^{5(0.02\text{-}0.2)}$ obtained by extracting a component with a wavelength of 0.02 μm or longer and 0.2 μm or shorter from said three-dimensional date and geometrically measured area S_0^5 is surface area ratio expressed by $\Delta S^{5(0.02\text{-}0.2)} = [(S_x^{5(0.02\text{-}0.2)} - S_0^5) / S_0^5] \times 100$ (%);

steepness $a45^5$ is an area rate of a portion (area) having a slant with size of angle of 45° or bigger) to actual area S_x^5 found by approximation three-point method from said three-dimensional data;

steepness $a45^{5(0.2\text{-}5)}$ is an area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area $S_x^{5(0.2\text{-}5)}$ found by extracting a component with wavelength of 0.2 μm or longer and 5 μm or shorter from said three-dimensional data; and

steepness $a45^{5(0.02\text{-}0.2)}$ is an area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area $S_x^{5(0.02\text{-}0.2)}$ found by extracting a component with wavelength of 0.02 μm or longer and 0.2μm or shorter from said three-dimensional data.

23. (new): A support for a lithographic printing plate obtained by performing graining treatment including electrochemical graining treatment on an aluminum plate,

wherein said aluminum plate is an aluminum plate which is manufactured by a method including molten metal treatment, and contains Fe of 0.20 to 0.29 wt%, Si of 0.03 to 0.15 wt%, Cu of 0.032 to 0.040 wt% and Ti of 0.050 wt% or less and whose remaining portion is composed of Al and unavoidable impurities,

wherein said electrochemical graining treatment is performed in order of nitric acid electrolytic graining and hydrochloric acid graining,

and wherein surface area ratio and steepness obtained from three-dimensional data by measuring 512 × 512 points in 50 μm × 50 μm on the surface with an atomic force microscope each satisfies the following conditions (xi) to (xvi):

(xi) surface area ratio ΔS^{50} is 30 to 70 %;

(xii) surface area ratio $\Delta S^{50(2\text{-}50)}$ is 5 to 10 %;

(xiii) surface area ratio $\Delta S^{50(0.2\text{-}2)}$ is 15 to 40 %;

(iv) steepness $a45^{50}$ is 25 to 60 %;

(xv) steepness $a45^{50(2.50)}$ is 0 to 3.0 %; and

(xvi) steepness $a45^{50(0.2\text{-}2)}$ is 10 to 40 %,

wherein ΔS^{50} which is found by the following equation from actual area S_x^{50} found by an approximation three-point method from said three-dimensional data and geometrically measured area S_0^{50} is surface area ratio expressed by $\Delta S^{50} = [(S_x^{50} - S_0^{50}) / S_0^{50}] \times 100$ (%);

$\Delta S^{50(2\text{-}50)}$ which is found by the following equation from actual area $S_x^{50(2\text{-}50)}$ obtained by extracting a component with wavelength of 2 μm or longer and 50 μm or shorter from said three-dimensional data and geometrically measured area S_0^{50} is surface area ratio expressed by $\Delta S^{50(2\text{-}50)} = [(S_x^{50(2\text{-}50)} - S_0^{50}) / S_0^{50}] \times 100$ (%);

$\Delta S^{50(0.2\text{-}2)}$ which is found by the following equation from actual area $S_x^{50(0.2\text{-}2)}$ obtained by extracting a component with wavelength of 0.2 μm or longer and 2 μm or shorter from said

three-dimensional data and geometrically measured area S_0^{50} is surface area ratio expressed by $\Delta S^{50(0.2\text{-}2)} = [(S_x^{50(0.2\text{-}2)} - S_0^{50}) / S_0^{50}] \times 100\ (\%)$;

steepness $a45^{50}$ is an area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area S_x^{50} found by approximation three-point method from said three-dimensional data;

steepness $a45^{50(2\text{-}50)}$ is an area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area $S_x^{50(2\text{-}50)}$ found by extracting a component with wavelength of 2 μm or longer and 50 μm or shorter from said three-dimensional data; and

steepness $a45^{50(0.2\text{-}2)}$ is the area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area $S_x^{50(0.2\text{-}2)}$ found by extracting a component with wavelength of 0.2 μm or longer and 2 μm or shorter from said three-dimensional data.

24. (new): The support for a lithographic printing plate according to claim 22, wherein the number of local deep areas with a depth of 5 μm or more existent on the surface is 1.0 or less per 400 μm × 400 μm.

25. (new): The support for a lithographic printing plate according to claim 23, wherein the number of local deep areas with a depth of 5 μm or more existent on the surface is 1.0 or less per 400 μm × 400 μm.

26. (new): The support for a lithographic printing plate according to claim 22, wherein Si atom attached quantity on the surface is 0.1 to 30 mg/m^2.

27 (new): The support for a lithographic printing plate according to claim 23, wherein Si atom attached quantity on the surface is 0.1 to 30 mg/m^2.

28 (new): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 22.

29 (new): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 23.

30. (new): The presensitized plate according to claim 28, wherein the presensitized plate is a presensitized plate for a laser printing plate.

31 (new): The presensitized plate according to claim 29, wherein the presensitized plate is a presensitized plated for a laser printing plate.